Abstracts

An embedded transmission line micro-ball grid array X-band power amplifier

T. Budka, L. Stiborek, L. Heinrich and C. Kyhl. "An embedded transmission line micro-ball grid array X-band power amplifier." 1998 MTT-S International Microwave Symposium Digest 98.3 (1998 Vol. III [MWSYM]): 1293-1296.

This paper describes an electronic packaging topology using embedded transmission line (ETL) monolithic microwave integrated circuits (MMIC) that have been flip-chip mounted on a beryllia (BeO) micro-ball grid array (/spl mu/BGA) ceramic carrier with a z-axis interconnect material. Small signal S-parameters are presented at each stage during the assembly process and negligible frequency shifts are observed due to the flip-chip packaging before and after encapsulation. Increased gains of 2.0 dB with the unencapsulated and 2.2 dB with the encapsulated packaged part are observed compared to the on-wafer measurements at 10 GHz under the same bias conditions.

❑ Return to main document.